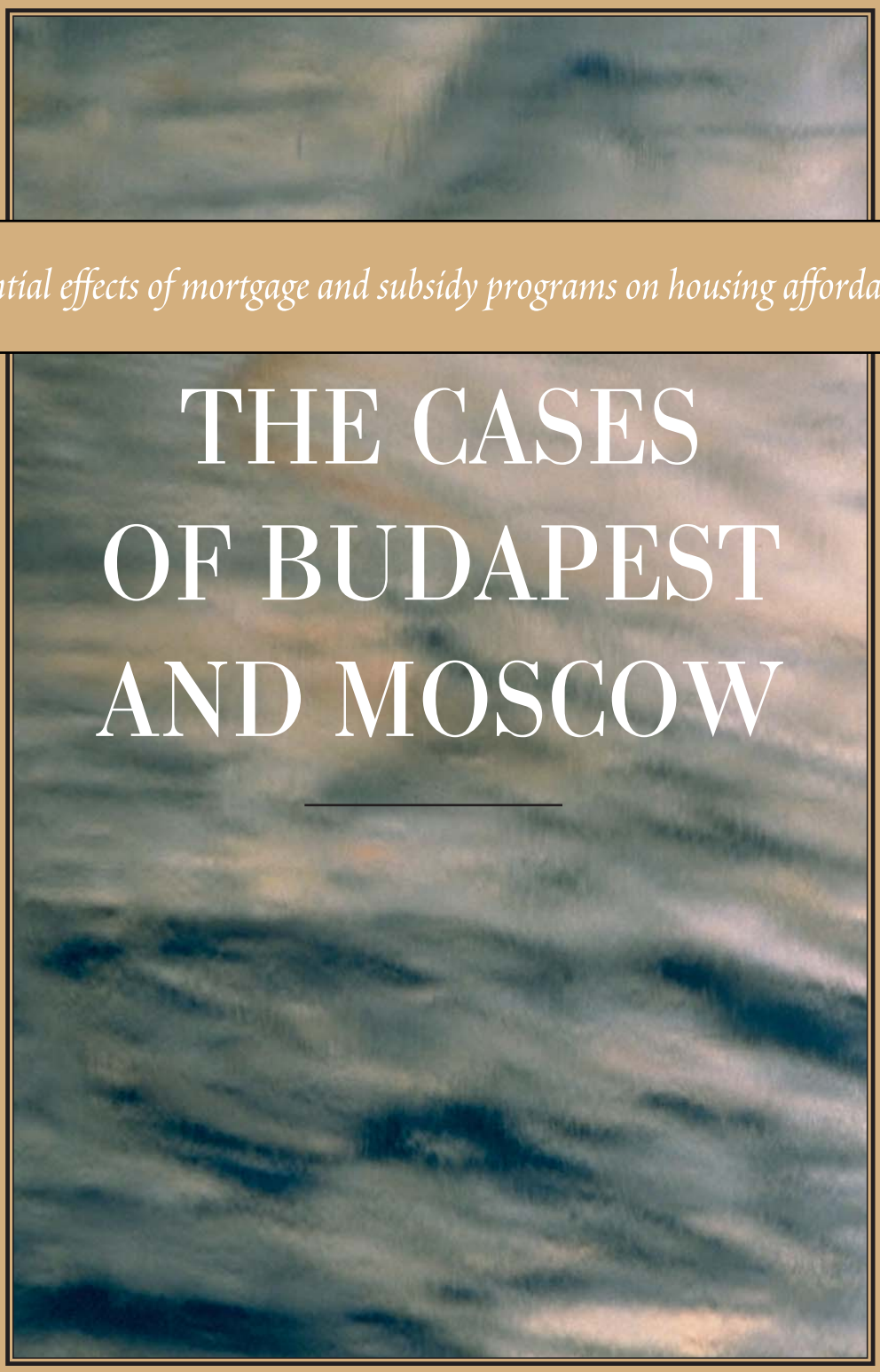
IMPROVEMENT OF ECONOMIC POLICY THROUGH THINK TANK PARTNERSHIPS



Potential effects of mortgage and subsidy programs on housing affordability:

THE CASES OF BUDAPEST AND MOSCOW

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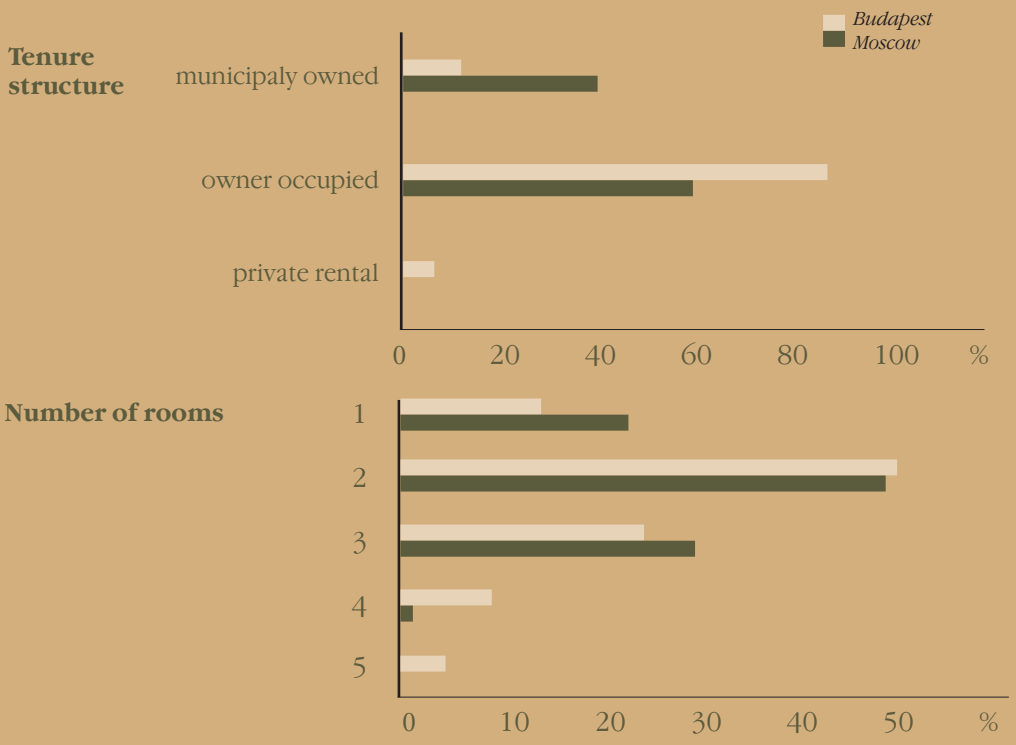
AFTER MORE than 10 years of transition, the housing sector has been restructured and can now be characterized as one with a significant privatization of the tenure system, cuts in subsidies, total restructuring the construction industry, new players like developers, a new financial sector and a new role for state housing policy as well. Nevertheless, at the end of the 90s a general lack of housing finance remained.

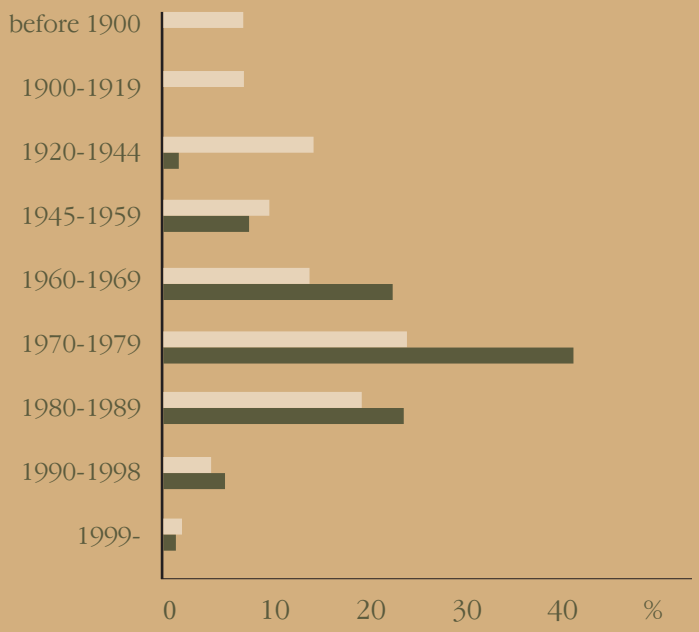
This is a problem, because the lack of the long- term loan makes housing unaffordable for the majority of households; this in turn puts strong pressure on the government for subsidies. Moreover, most subsidies can easily create disincentives for financial institutions to offer loans and for households to take loans at market interest rates. Without long term housing finance, residential mobility is lower than it could be, which may impede economic restructuring; and households' adjustment in their housing consumption is more rigid, leaving room for distortions (like increased preferences for cars and other durable goods for which financial constraints are less important). Affordability has become the key term in housing policy in both developed and transition countries. In transition countries, the puzzle is that high P/I ratio is accompanied with low level of housing cost/income ratio, which means that most of the transactions are based on cash transfers both intergeneration (inheritance) and intrageneration (family help).

There are different explanations for the low level of borrowing, factors both on the bank side and on the consumer side. However, very few analysts have addressed the problem of how different loan products effect affordability. A recent joint Hungarian-Russian-U.S. project tried to explore this problem in comparing the situations in two markets, Budapest and Moscow. (See Figure 1 for comparative information on the two housing markets.)

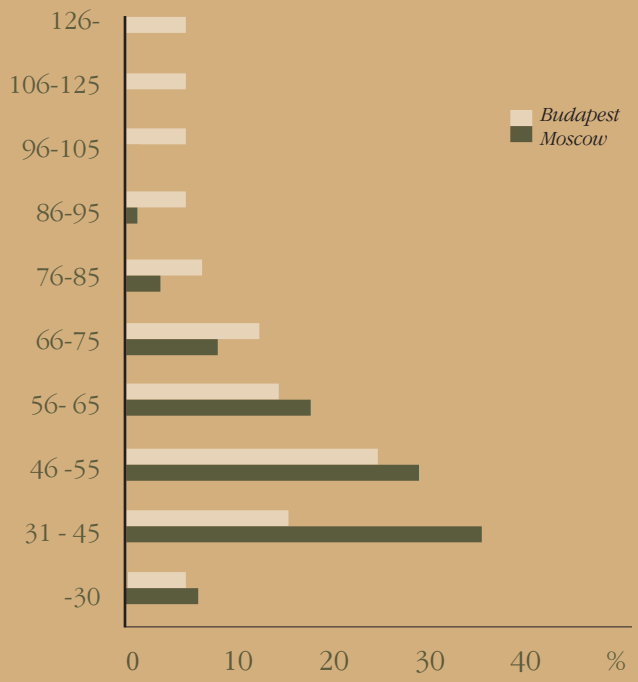
Figure 1 Comparative data for housing markets in Budapest and Moscow



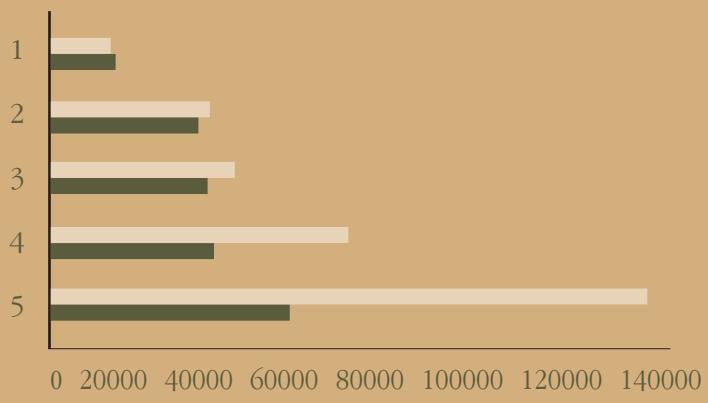
Period of construction



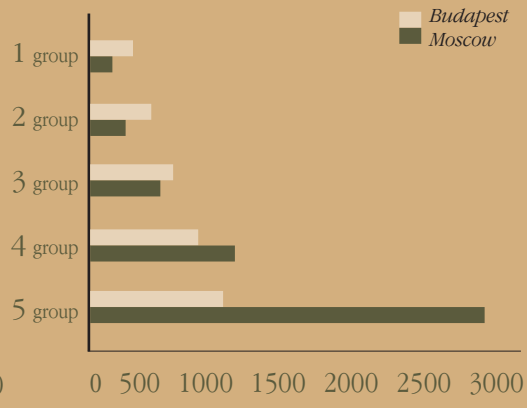
Floor area (sq.m)



Average housing prices by quintiles (based on $ value)



Household income by income quintiles (USD/month)



We concluded that house price/income ratio is less favorable in Budapest, but the other affordability indexes based on the affordability of long-term loan shows that Hungarian households have more chances to enter to the market. However, both markets are far away from the developed housing finance systems

Figure 2 Affordability indexes[1], in Budapest and in Moscow , 2003

	Budapest	*Moscow*	*USA*
House Price/Income ratio	*6,6*	*5,8*	*2,8*
Housing Affordability Index	*67%*	*42%*	*136%*
Housing Opportunity index	*11%*	*4%*	*65%*

[1] Housing affordability index (HAI) measures the ratio of the house price a median income household can buy with a standard loan (30 % payment to income ratio, 80 % LTV) to the median house price. A value less than 100 indicates that a household with average annual income would have less than the income required to afford median dwelling price. The Housing Opportunity Index (HOI) measures the share of homes within a specific market that a typical household (family earning the median income) can afford to buy.

The case of Hungary is distinguished by its "deep subsidy" that was introduced in 2002 to support borrowing that has turned out to be unsustainable. Thus to increase the affordability through an interest rate buy down had a huge price in terms of the budget cost and inequality. The present analysis has tried to answer the questions as to why it became unsustainable, and how different subsidy schemes could affect the affordability with a lower budget cost.

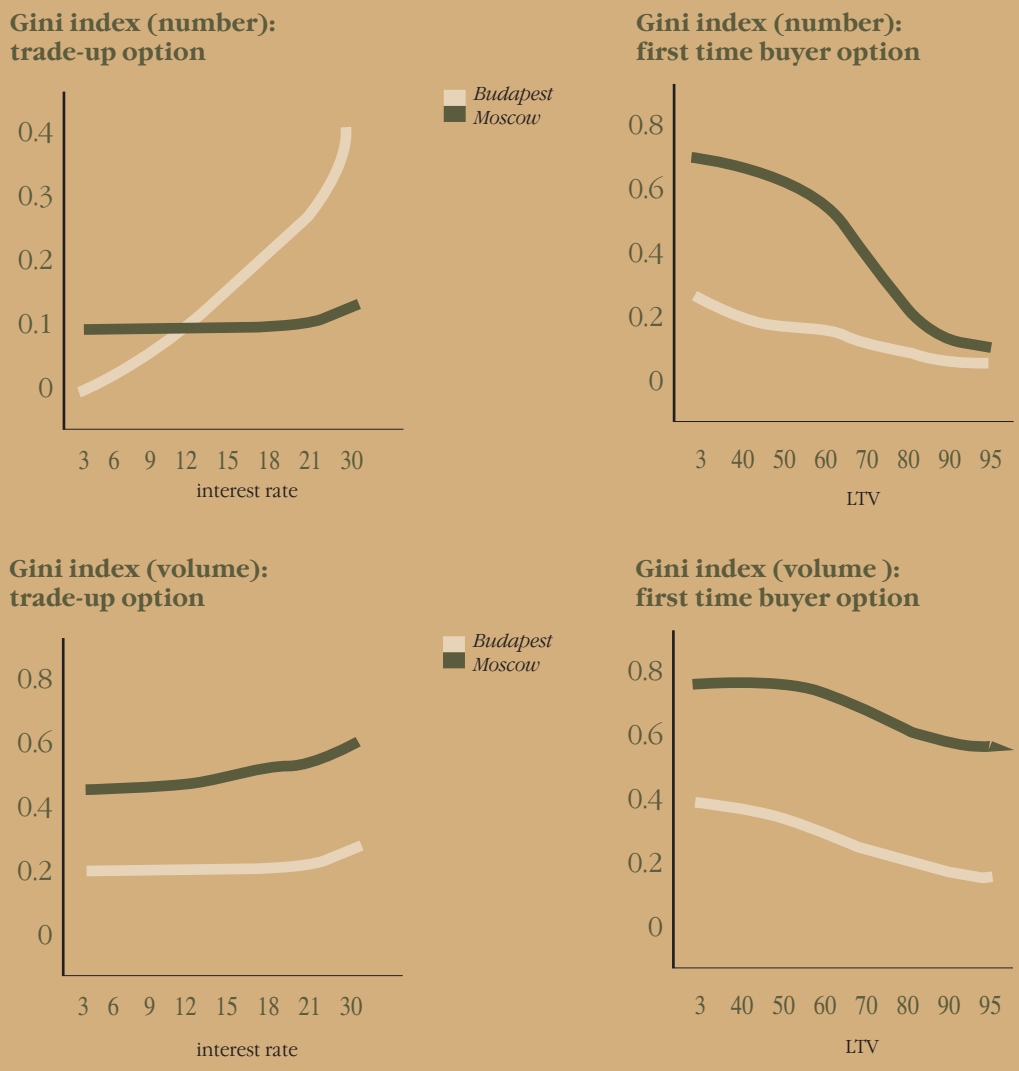
The team developed a simulation-accounting model to predict the potential demand for loans and housing as a function of the characteristics of different loan products that differed in parameters like the interest rate and LTV ratio, borrower's age limit, and household income and savings constraints. Taking into consideration the typical housing prices (target price), the model studied the potential affordability provided by different mortgage products. The conclusions are

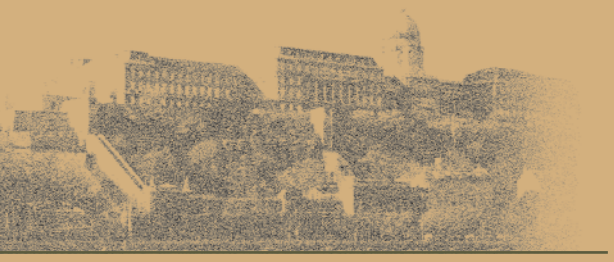
1. Raising the availability of mortgage finance does increase the effective demand for home purchases and the quantity of housing. In Moscow, the household sector had higher loan capacity (in relative terms) than the household sector in Budapest. In the case of a comparative loan product without a subsidy (15 % interest rate, 15 years, 30 % payment to income ratio) 67% of the households in Moscow can take a loan and they are 60 % larger on average than for Budapest households. This is because the income distribution is more unequal in Moscow than in Budapest, and the loan capacity of the higher income groups is much higher.
2. The research concluded that the affordability problem has a very different nature in respect to trade-up households and first time buyers. (In the model, for a current owner-occupied to trade-up, it must be able to increase the value of its unit by at least 25%.) Demand elasticities with respect to the interest rate and the LTV ratio differ very much between these groups. Lower interest rates increase the affordability of the trade-up groups but have no real effect on the first-time buyers, who are facing the problem of the lack of savings for the downpayment. The programs, which aim to buy down the interest rate will help mainly the trade-up movers. This was a mistake in the Hungarian subsidy program, which focused on

the interest rate buy down. On the one hand, it led to a situation where first time buyers (without family support, that is without savings) were not able to enter the market. On the other hand, it gave incentives to households without housing problem to buy new homes because of the subsidy involved in borrowing.

3. Inequality in income, savings and house prices among the different groups also have an effect on affordability. Gini indexes were used to measure inequality in terms of access to loans and in terms of the allocation of loan volume among income quintiles. The more affordable the borrowing (low interest rate and high LTV) the less inequality in terms of the number. But the inequality in terms of the volume remains because of the income inequalities. The differences between Budapest and Moscow related to the different level of income inequality.

Figure 3 The equity issue (Gini indexes of the allocation of the loan capacity according to the number and volume)

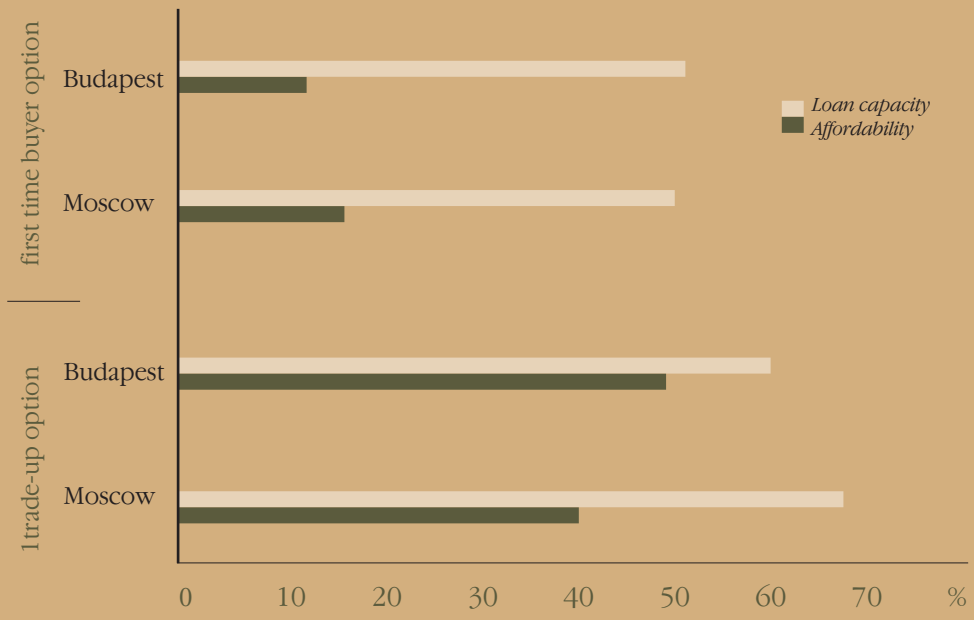




4. Conditions are very different between Russia and Hungary, with result that Russia has a very low level of price elasticity of housing supply and Hungary a fairly high one. The housing prices of the units on the market differ from the price distribution of the stock. The actual market price has an impact on housing affordability, thus the differences between the price distribution of the market prices and stock prices plays an important role in explaining affordability. In Moscow the target prices based on the market transactions were 25-40 % higher than the stock prices. This observation can be defended for Russia with the well-known restrictions on supply caused by bureaucratic games (chief architect, etc.), and by the evidence of little inflation in Hungary in response to a huge increase in mortgage financing over the past few years.

5. The affordability analysis concluded that in Moscow 40 % of households can afford the median priced house (55000 USD) in the trade-up option, and only 15 % in the first time option. In Budapest the median priced house (50000 USD) is affordable for the 49 % of the households in the trade-up option, and 12 % in the first time option. This means that in the case of the first time buyers a substantial part of the household can take loan, but unable to buy the median priced house.

Figure 4 Affordability analysis: share of households

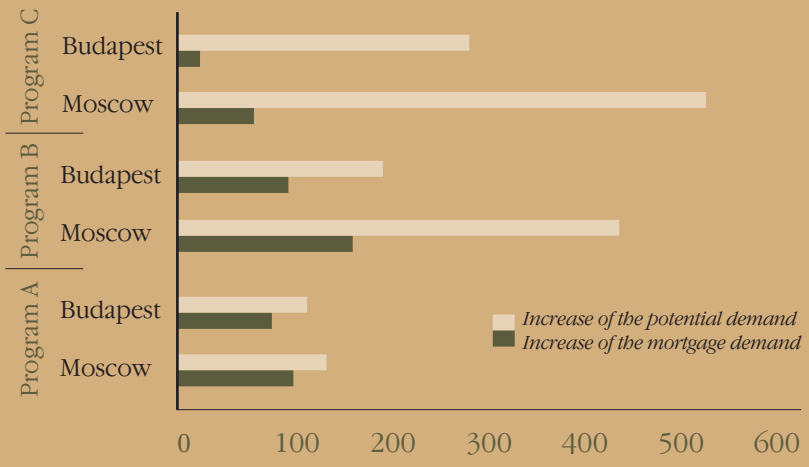


6. Affordability can be improved by subsidy programs with a program's impact depending on its design. Three subsidy options were tested. The first one (Program A) gave a flat interest rate subsidy (like Hungarian program); the second (Program B) gave an interest rate subsidy, but the size of the subsidy depended on household income. The third program (Program C) allocated an up-front cash subsidy equal to the present value of the subsidy given in the second program. We compared the programs according to two criteria: 1. How much they increase buying capacity (purchasing power) 2. How they effected the income group's access to the subsidy, that is, how many households can afford now to purchase the median-priced unit. We tested just the trade-up option, as the interest rate subsidy does not influence the first-time buyers affordability very much.

7. Program A increased affordability by 7 percentage points, i.e., the share of households who can afford median priced units increased--from 47 % to 54 % in Budapest. In Moscow, the effect of the Program A is more significant as it increased the share of the households who can afford the median priced unit from 40 % to 49 %. In Budapest, Program B, however, is more efficient: the share of household who can afford median-priced house would increase more than two times than in Program A. In program C the difference is four times. In Moscow, the efficiency gap is bigger among the programs, because the Program A is very inefficient. The reason for this is the huge income inequalities in Moscow. (See Figure 5.)

8. If we measure the effects of the programs on the demand for housing and for loans, we have basically the same conclusion. However, there is an important difference, that Program C increases housing demand more than Program A or Program B, but less the demand for loans, i.e., the ability to purchase a unit. This is because the subsidy is an up-front subsidy and for the trade-up market the down-payment constraint is less important. In the Hungarian political discussion, the bank-lobby was much more interested in the interest rate subsidy, than to move towards a cash-base subsidy. Their argument was that housing demand will change as interest rate does down, but they did not take into consideration the lack of savings as the main constraint on increasing loans.

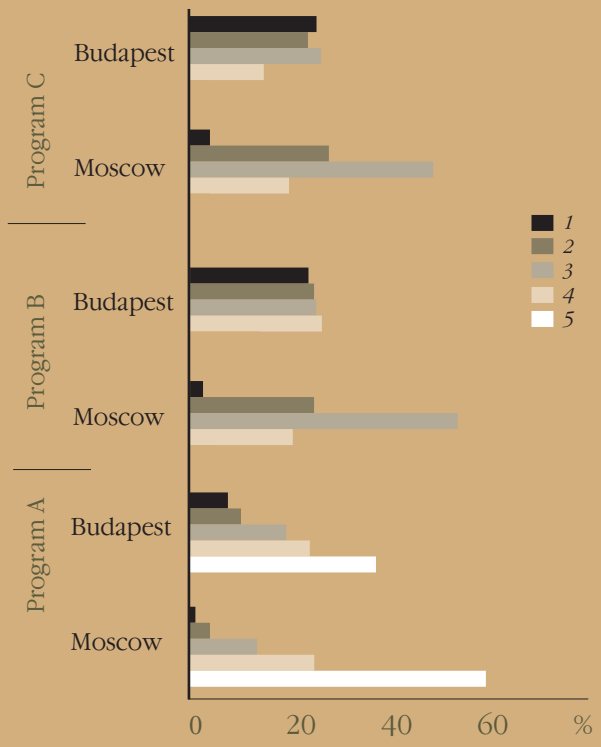
Figure 5 The effects of the subsidy programs on the demand for housing and loans (as relative to 100 USD subsidy)



9. The equity issue is very important as well. Programs B and C have the same effect, because they are means-tested schemes. The difference is huge between their effects and those of Program A, but even the Program C will not result a progressive distribution of the subsidy. In the case of Budapest, as a consequence of means-testing the subsidy, the first three income quintiles have the same chance to get the subsidy; and there is no difference between them. We could expect that lower income group will have more subsidies according to the program rules. But this is not the case because among the low income group the share of households who cannot afford the median priced house - even with the subsidy - is higher than among the higher income groups. Household belonging to the fourth quintile have less chance

than those in the first three, and the fifth is out because of the means-testing. In Moscow, among the first three income quintiles the pattern remains regressive (the higher the income, the greater the subsidy).

Figure 6 Allocation of the subsidies among the income quintiles



10. The policy advice based on our research on the superior way to support long term borrowing is to select Program C. The Hungarian subsidy program (Program A) gave a 9 % (flat) interest rate subsidy, which helped the trade-ups and first time buyers (with high family savings). Moreover, it gave incentives for household with savings to invest in housing without real housing needs; the program also risked producing substantial house price increases, which would worsen the affordability to the majority of the population. Program B would have had better results in terms of the equity issue, but from an efficiency perspective, Program C is better in these two diverse housing markets.

Full version of the report "Potential effects of mortgage and subsidy programs on housing affordability: the cases of Budapest and Moscow" is accessible on the web-sites of The Institute for Urban Economics www.urbaneconomics.ru and Metropolitan Research Institute www.mri.hu

IMPROVEMENT OF ECONOMIC POLICY THROUGH THINK TANK PARTNERSHIPS

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